Supporting information:

**Title:** Solvent-mediated directionally self-assembling MoS$_2$ nanosheets to a novel worm-like structure and its application in sodium batteries

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Figure S1. TGA analysis of the octylamine in the prepared samples in air at a heating rate of 5°C min$^{-1}$ to 700 °C.

Figure S2. Rate capability of the worm-like MoS$_2$. 